

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: CHESHIRE POND	Lake Area (ha):	23.07
Town: JAFFREY	Maximum depth (m):	3.0
County: Cheshire	Mean depth (m):	1.0
River Basin: Merrimack	Volume (m ³):	233000
Latitude: 42°49'14" N	Relative depth:	0.6
Longitude: 72°00'40" W	Shore configuration:	1.59
Elevation (ft): 964	Areal water load (m/yr):	177.7
Shore length (m): 2700	Flushing rate (yr ⁻¹):	176.0
Watershed area (ha): 7338.7	P retention coeff.:	0.11
% watershed ponded: 5.9	Lake type:	artificial

BIOLOGICAL:

17 February 1999

6 August 1998

DOM. PHYTOPLANKTON (% TOTAL)	#1	NO WINTER PLANKTON	DINOBRYON 70%
	#2	ANALYZED	RHIZOSOLENIA 25%
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			17.03
DOM. ZOOPLANKTON (% TOTAL)	#1		KERATELLA 74%
	#2		POLYARTHRA 10%
	#3		NAUPLIUS LARVA 4%
ROTIFERS/LITER			3723
MICROCRUSTACEA/LITER			484
ZOOPLANKTON ABUNDANCE (#/L)			4249
VASCULAR PLANT ABUNDANCE			Abundant
SECCHI DISK TRANSPARENCY (m)			1.0
BOTTOM DISSOLVED OXYGEN (mg/L)		14.8	2.3
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: CHESHIRE POND

Town: JAFFREY

	17 February 1999		6 August 1998		
DEPTH (m)	1.0		1.5		
pH (units)	5.6		6.3		
A.N.C. (Alkalinity)	2.2		6.3		
NITRATE NITROGEN	0.11		0.11		
TOTAL KJELDAHL NITROGEN	0.20		0.70		
TOTAL PHOSPHORUS	0.006		0.033		
CONDUCTIVITY (μ mhos/cm)	94.4		108.0		
APPARENT COLOR (cpu)	37		100		
MAGNESIUM			0.88		
CALCIUM			3.7		
SODIUM			15.1		
POTASSIUM			0.93		
CHLORIDE	22		26		
SULFATE	6		3		
TN : TP	52		25		
CALCITE SATURATION INDEX			3.6		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1998

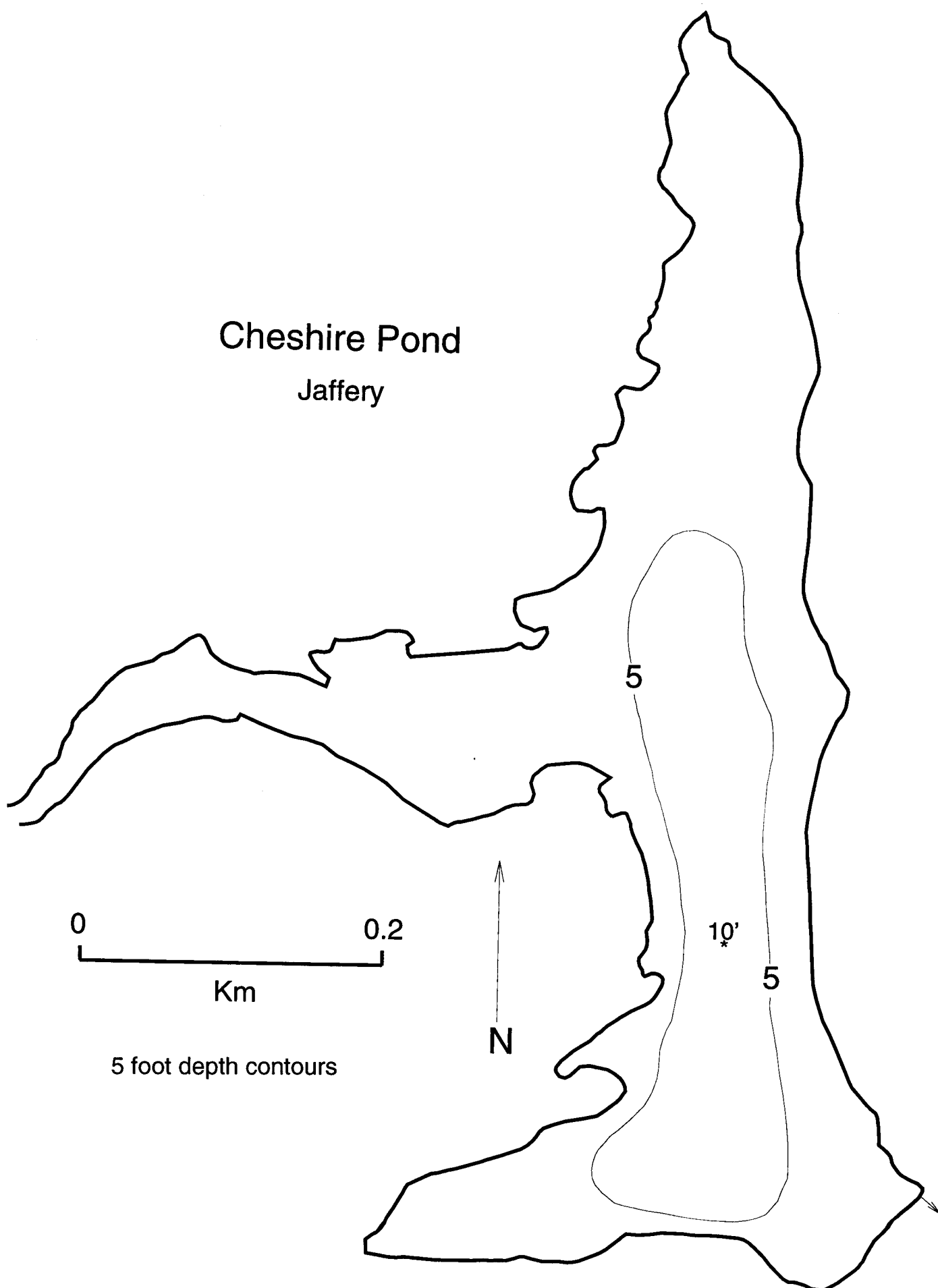
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	5	5	3	13	Eutro.

COMMENTS:

1. Cheshire Pond was previously surveyed and classified in 1988. There was no change in trophic class although there was less algal growth in 1998.
2. This is an impoundment on the Contoocook River. It has dark tea-colored water, and conductivity, sodium and chloride levels that suggest road salt runoff.
3. No public access. Private campground is located on the pond.

Cheshire Pond

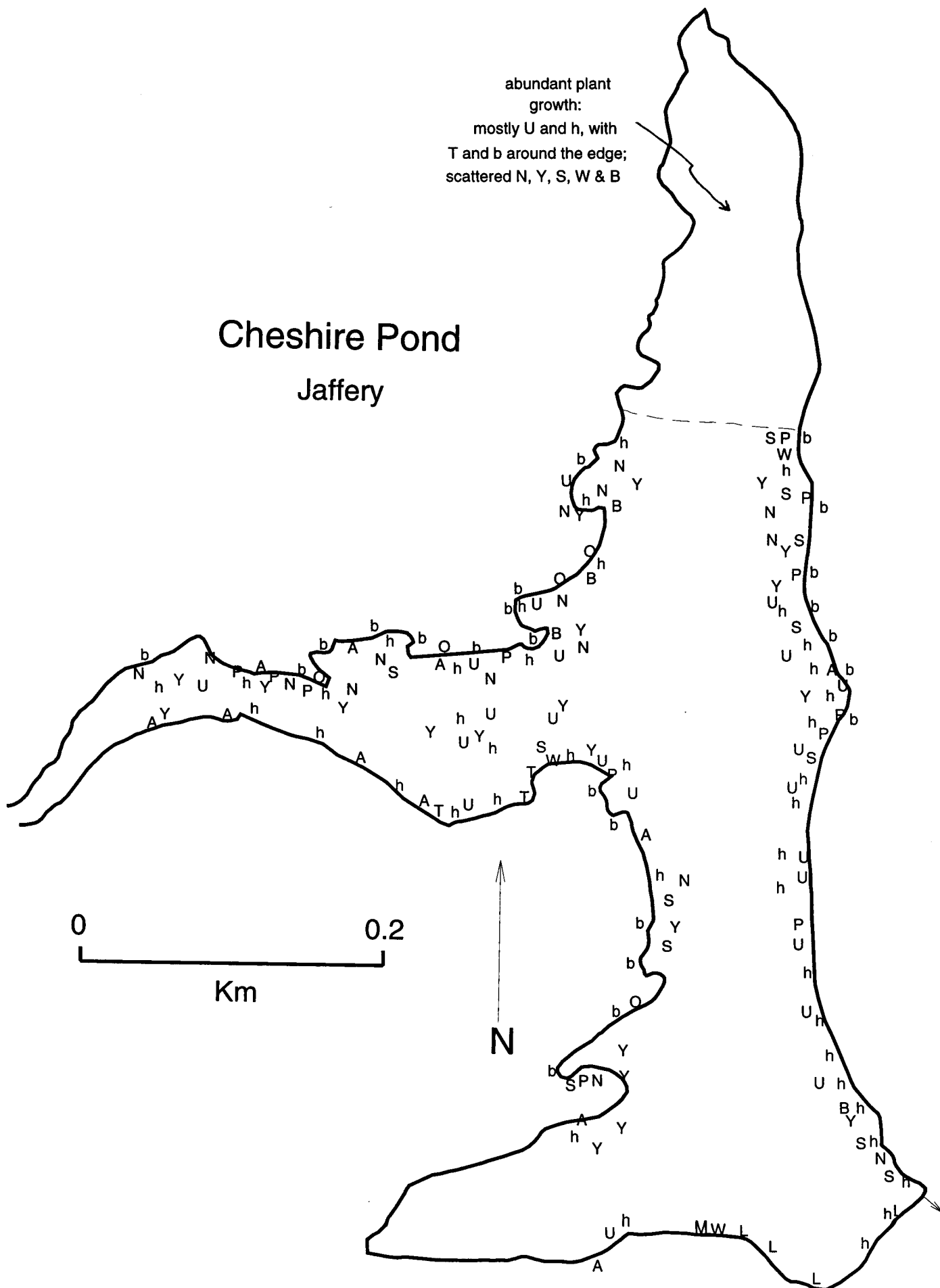
Jaffery



abundant plant
growth:
mostly U and h, with
T and b around the edge;
scattered N, Y, S, W & B

Cheshire Pond

Jaffery



[illegible]